

Kansas'
Cooperative Agriculture Pest Survey
Cooperative Agreement: 09-8453-1227-CA (extension agreement)
and 10-8453-1227-CA
Period Covering: 1/1/10-12/31/10

Semi-Annual
CAPS and Fiscal Report
January 1, 2010 through June 30, 2010

This report summarizes the activities conducted during the agreement's semi-annual work period, January 1, 2010 through June 30, 2010. Each project is discussed separately.

Small Grain & Soybean Commodity Survey (2009 extension)

Participants: Full time KDA staff – Glenn Salsbury provided training and specimen sorting.
Temporary Staff - Gari Van Es did survey work.
Traps for moth identifications sent to Eric LaGasa in Olympia, Washington.

2010 Counties: Butler, Dickinson, Ellsworth, Harper, Harvey, Kingman, Marion, McPherson, Rice, Reno, Saline, Sedgwick and Sumner.

Common Name	Scientific Name	Survey Dates (Starting-Ending)	Survey Method	Number of Wheat Fields
Silver Y Moth	<i>Autographa gamma</i>	April-June 2010	Pheromone Trap	100
Egyptian Cotton Leafworm	<i>Spodoptera littoralis</i>	April-June 2010	Pheromone Trap	100
Old World Bollworm	<i>Helicoverpa armigera</i>	April-June 2010	Pheromone Trap	100
Maritime Gardensnail	<i>Cernuella virgata</i>	April-June 2010	Visual Survey	100
Yellow Witchweed	<i>Alectra vogelii</i>	April-June 2010	Visual Survey	Completed in 2009 (soybean fields)
Soybean Aphid	<i>Aphis glycines</i>	April-June 2010	Visual Survey & Sweep Nets	Completed in 2009 (soybean fields)
Cereal Leaf Beetle-in wheat fields	<i>Oulema melanopus</i>	April-June 2010	Visual Survey & Sweep Nets	100
Insidious Flower Bug & Minute Pirate Bug	<i>Orius spp.</i>	April-June 2010	Visual Survey & Sweep Nets	100
Damsel Bug	<i>Nabis spp.</i>	April-June 2010	Visual Survey & Sweep Nets	100
Lacewings		April-June 2010	Visual Survey & Sweep Nets	100
Lady Beetles		April-June 2010	Visual Survey & Sweep Nets	100

This survey was a continuation from 2009 because we did not spend all the funding so we were granted an extension. We focused on 100 wheat fields in the counties of Dickinson, Saline, Ellsworth, Rice, McPherson, Marion, Reno, Harvey, Butler, Sedgwick, Kingman, Harper and Sumner. These counties have the most wheat and did not get started when needed last year because of funding. We also had weather and vandalism issues in some of these counties in 2009.

Soybean Fields were not done this year because traps were set at the proper time for this in 2009.

This survey started March 29, 2010 and will end in July 2010.

Records that have been submitted to NAPIS

Pest: CEREAL LEAF BEETLE (*oulema melanopus*)

March 2010	Positive	Negative
Sumner	0	11
April 2010		
Butler	0	3
Dickinson	0	6
Ellsworth	0	4
Harper	0	10
Harvey	0	5
Kingman	0	10
McPherson	0	10
Marion	0	5
Reno	0	10
Rice	0	9
Saline	0	6
Sedgwick	0	10
Sumner	0	1
State Total	0	100

Pest: LACEWINGS (*Chrysoperla (Chrysopa) carnea*)

March 2010	Positive	Negative
Sumner	0	11
April 2010		
Butler	0	3
Dickinson	0	6
Ellsworth	0	4
Harper	0	10
Harvey	0	5
Kingman	0	10
McPherson	0	10
Marion	0	5
Reno	0	10
Rice	0	9
Saline	2	4
Sedgwick	0	10
Sumner	0	1
State Total	2	98

Pest: LADY BEETLES (*Hippodamia convergens*)

March 2010	Positive	Negative
Sumner	0	11
April 2010		
Butler	0	3
Dickinson	0	6
Ellsworth	0	4
Harper	0	10
Harvey	0	5
Kingman	0	10
McPherson	0	10
Marion	0	5
Reno	0	10
Rice	0	9

Saline	0	6
Sedgwick	0	10
Sumner	0	1
State Total	0	100

Pest: MARITIME GARDEN SNAIL (*cernuella virgata*)

March 2010	Positive	Negative
Sumner	0	11
April 2010		
Butler	0	3
Dickinson	0	6
Ellsworth	0	4
Harper	0	10
Harvey	0	5
Kingman	0	10
McPherson	0	10
Marion	0	5
Reno	0	10
Rice	0	9
Saline	0	6
Sedgwick	0	10
Sumner	0	1
State Total	0	100

Pest: DAMSEL BUG (*Nabis spp.*)

March 2010	Positive	Negative
Sumner	0	11
April 2010		
Butler	0	3
Dickinson	0	6
Ellsworth	0	4
Harper	0	10
Harvey	0	5
Kingman	0	10
McPherson	0	10
Marion	0	5
Reno	0	10
Rice	0	9
Saline	1	5
Sedgwick	0	10
Sumner	0	1
State Total	1	99

Pest: INSIDIOUS FLOWER BUG & MINUTE PIRATE BUG (*Orius spp.*)

March 2010	Positive	Negative
Sumner	0	11
April 2010		
Butler	0	3
Dickinson	0	6
Ellsworth	0	4
Harper	0	10
Harvey	0	5
Kingman	0	10
McPherson	0	10
Marion	0	5
Reno	0	10
Rice	0	9

Saline	0	6
Sedgwick	0	10
Sumner	0	1
State Total	0	100

Karnal Bunt

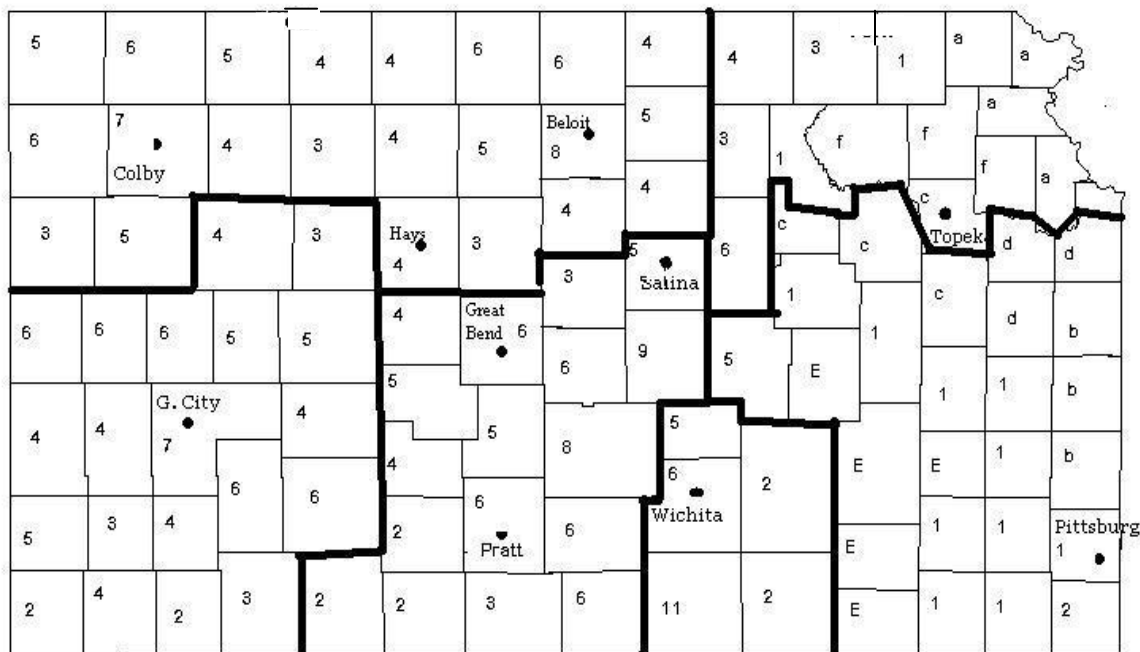
Participants: Full time KDA staff – Bob Buhler, Cherie Copeland, Jon Appel, Terry Clarkson, Tom Sanders and Laurinda Ramonda took samples.

The number of total samples was revised from 372 samples to 344 samples for 2010 because the five year average of bushels of wheat harvested has decreased though some counties have increased.

We had difficulties finding samples in several counties this year because of a decrease in planted acres, weather problems and refusals at elevators.

Karnal Bunt sampling started on June 21, 2010 and will continue into July.

Common Name	Scientific Name	Survey Dates (Starting-Ending)	Number of Sites
Karnal Bunt	<i>Tilletia indica</i>	Onset of wheat harvest to 3 weeks after harvests end	344 (down from 372)



2010 Karnal bunt areas

Revised numbers: Average of 5 yrs

Lettered counties are composites.

Records that have been submitted to NAPIS

Results still pending.

Fire Ant Survey

Participants: Full time KDA staff – Glenn Salsbury provided training and sample identifications.
Temporary staff-Brian Brunkow

Possible counties: Butler, Crawford, Douglas, Finney, Ford, Johnson, Miami, Montgomery, Riley, Shawnee and Sedgwick.

Common Name	Scientific Name	Survey Dates (Starting-Ending)	Number of Sites
Red Imported Fire Ant	<i>Solenopsis invicta</i>	June-July 2010	30

Nurseries with the highest risk of introduction were surveyed. This survey began on June 1, 2010.

County	# of Sites trapped by June 30
Butler	1
Ford	3
Finney	2
Franklin	1
Geary	1
Johnson	1
Nemaha	1
Pottawatomie	1
Riley	5
Shawnee	2
Sedgwick	5
Wyandotte	4
TOTAL	27

Records that have been submitted to NAPIS

Results still pending.

Emerald Ash Borer

Participants: Full time KDA staff – Bob Buhler, Cherie Copeland, Glenn Salsbury, Terry Clarkson and Tom Sanders did survey work.

Target Species	Scientific Name	Survey Dates (Starting-Ending)	Number of Traps
Emerald Ash Borer	<i>Agrilus planipennis</i>	April-September 2010	100

Campgrounds, event sites and debris sites were the major focus of our monitoring. This survey began on April 20, 2010 and all traps were up by May 14, 2010.

Records that have been submitted to NAPIS

Results still pending.

Canada thistle (*Cirsium arvense*)
Biological Control using *Ceutorhynchus litura*

Participants: full time KDA staff – Darin Banks provided monitoring and release.

Month	Activity
August	Release <i>Ceutorhynchus litura</i>
August - October	Monitor Canada thistle and <i>Ceutorhynchus litura</i>

Records that have been submitted to NAPIS

Has not begun yet.

Spotted Knapweed (*Centaurea stoebe* L.)
biological control using the lesser knapweed flower weevil (*Larinus minutus*) and the knapweed root weevil (*Cyphocleonus achates*)

Participants: KDA full time – Jeff Vogel provided training and surveying and Darin Banks provided release.

Temporary staff – Brian Brunkow

Counties: Cheyenne, Decatur, Jewell, Norton, Phillips, Rawlins and Smith. Other possible counties: Allen, Anderson, Franklin, Labette and Neosho.

Month	Activity
June-August	Survey for spotted knapweed
July	Release <i>Larinus minutus</i>
August	Release <i>Cyphocleonus achates</i>
August - October	Monitor spotted knapweed and <i>Larinus minutes</i> and <i>Cyphocleonus achates</i>

Survey began on June 23, 2010 and the release of 800 *Larinus minutus* occurred on June 24, 2010.

Records that have been submitted to NAPIS

Results still pending.

Cereal Crop Nematode Survey

Participants: KDA full time – Jon Appel provided training.

Temporary staff - Mark McNay, Heather Simmons and Brian Brunkow.

Counties: Allen, Anderson, Atchison, Bourbon, Brown, Butler, Chase, Chautauqua, Cherokee, Clay, Cloud, Coffey, Cowley, Crawford, Dickinson, Doniphan, Douglas, Elk, Franklin, Geary, Greenwood, Harvey, Jackson, Jefferson, Jewell, Johnson, Labette, Leavenworth, Linn, Lyon, Marion, Marshall, McPherson, Miami, Mitchell Montgomery, Morris, Nemaha, Neosho, Osage, Ottawa, Pottawatomie, Republic, Riley, Saline, Sedgwick, Shawnee, Sumner, Wabaunsee, Washington, Wilson, Woodson and Wyandotte.

Month	Activity
April-May	Soil and root sampling of wheat fields

Target Species	Survey Dates (Starting-Ending)	Number of Traps/Visual surveys
British Root Knot Nematode- <i>Meloidogyne artiellia</i>	April-May 2010	20 sample cores/field
Mediterranean Cereal Cyst Nematode- <i>Heterodera latipons</i>		
Cereal Cyst Nematode- <i>Heterodera avenae</i>		
Cereal Cyst Nematode- <i>Heterodera filipjevi</i>		
Other Nematode pests- <i>Pratylenchus species</i>		
Soybean Cyst Nematode- <i>Heterodera glycines</i>		
* Samples for these pests are screened simultaneously		

This survey started on March 29, 2010 and sampling ended on May 26, 2010.

[illegible]

1 sample for every 4800 planted acres more or less based on average acreage 2006 and 2007

Results still pending.

Participants: KDA full time – Glenn Salsbury - sample sorting, visual survey and trapping.
Jon Appel - visual survey. Trapping and Visual survey – Bob Buhler, Tom Sanders
and Terry Clarkson.

Month	Activity
April-August	Canopy trapping
July-October	Visual Surveys

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Canopy traps were hung starting April 8, 2010 and checked every 7-10 days.

County	# of Traps
Bourbon	2
Cherokee	1
Crawford	1
Franklin	2
Kingman	2
Miami	3
Russell	1
TOTAL	12

Records that have been submitted to NAPIS

Results still pending.